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Ingenuity for life

The intelligent gateway for industrial IOT solutions
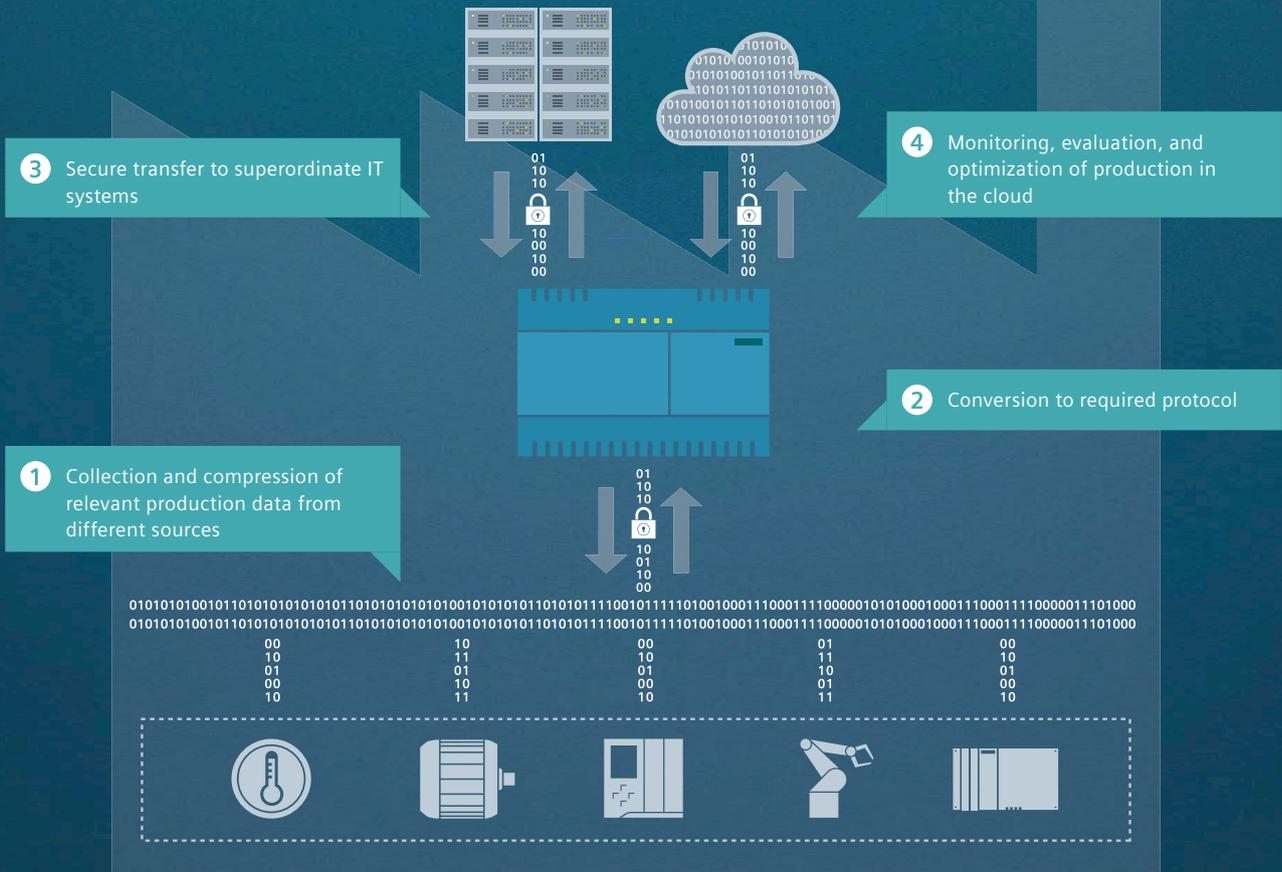
SIMATIC IOT2040

usa.siemens.com/iot2040

With advancing digitalization, there continues to be steady progress in networking between production and office IT. Production data is collected and analyzed in the cloud or in the management system to optimize production. Yet the netwroking of existing plants represents a major challenge, because equipment from different manufacturers are frequently at different technological levels and often do not speak the same data languages and protocols. A time-consuming and complex retrofitting to connect both worlds soon becomes necessary.

An intelligent gateway that standardizes communication between the various data sources, then analyzes and forwards communications to the corresponding recipients is a solution that can be easily implemented. It makes it possible to implement future-oriented production concepts even for existing plants.

Performance. Openness. Expandability.
SIMATIC IOT2040 at a glance

- Various possibilities for programming in high-level languages
- Yocto Linux support
- Easily expandable with Arduino shields and mini PCIe cards
- Compact industrial design and DIN rail mounting
- Energy-saving and high-performance Intel Quark processor and numerous interfaces: Intel Quark x1020 (+Secure Boot), 1 GB RAM, 2 x Ethernet ports, 2 x RS232/485 interfaces, Real Time Clock with battery back-up
- Proven SIMATIC quality with high level of robustness

③ Secure transfer to superordinate IT systems

④ Monitoring, evaluation, and optimization of production in the cloud

② Conversion to required protocol

① Collection and compression of relevant production data from different sources

Sample applications

Preventive maintenance

Collection and analysis of data such as rotational speed and operating time to determine the appropriate maintenance window for a machine based on use.

Optimized shop floor management

Data transmission if there is a shortfall in the minimum inventory of consumables and automatic notification in the shop floor management system to reduce plant downtimes.